Emotional Intelligence and Electric Shock in Relation to Galvanic Skin Response

Jesse Bober

Introduction

Stress

• Stress is the result of “when one’s perceived demands outweigh one’s perceived resources” and will elicit physiological responses (Cruess et al., 2015).

Effects of Stress

• One study evaluated the level of stress by the ability of skin to conduct an electric current. This is because of the increase in sweat production during times of stress (Effering & Grebner, 2011).

Variables Associated With Stress

• Emotional intelligence is the ability of someone to distinguish emotions and their implications (Meyer & Geher, 1996).
• There is a relation between emotional intelligence and physiological response (Zysberg, 2012).
• The more someone is stressed, the more likely they are to have a poor test score on an emotional intelligence assessment (Holinka, 2015)

Hypothesis

• A lower score on an emotional intelligence test (S-PEC) will correlate with a lower galvanic skin response to stress from electric shock.

Method

Participants

• N = 10 students from Eastern Connecticut State University
• 40% Male (n = 4), 60% Female (n = 6)
• 10% Freshmen (n = 1), 40% Sophomore (n = 4), 20% Junior (n = 2), 30% Senior (n = 3)
• 90% Caucasian (n = 9), 10% Hispanic (n = 1)
• Mean Age: 19.7 (SD = 1.4)

Materials

Brief Emotional Intelligence Scale (Davies, Lane, Devonport, & Scott, 2010)
• 5 pt. Likert-type scale
• Lower score suggests higher level of emotional intelligence

Electric shock

• Low level of shock administered to each participant
• Meant to induce physiological response indicating stress

BioPac MP150 measured GSR on the palm of the hand

Procedure

• Administer BEIS-10. Valid and reliable measure (Davies, Lane, Devonport, & Scott, 2010)
• Apply Biopac monitors to palms of the hand, record a 5 minute baseline
• Apply intermittent shock at variable intervals, record GSR levels during this time period
• Demographic measure

Results

• IBM SPSS 22
• Mean Value: GSR M = .07 (SD = .70),
• Mean Value: EQ M = 21.70 (SD = 9.39)
• A Spearman’s rho correlation coefficient was calculated
• A negative correlation was found between EQ and GSR, r (N = 10) = -.58, p = .05

Conclusion

Summary

• The hypothesis that a lower score on an emotional intelligence test (S-PEC) will correlate with a lower galvanic skin response to stress from electric shock was supported by the findings.
• It could be inferred that people who are more aware of emotions are better able to control their body’s response to stress such as electrical shock.

Limitations

• Small sample size
• Brief Measure
• Internal Validity
• External Validity

References


